

Serial No.: 10/610,499
Confirmation No.: 5391
Applicants: BRADBURY, Andrew J. *et al.*
Atty. Ref.: 8011.406.CPUS00

REMARKS

SUMMARY:

Claims 11, 13-18 and 21-24 are now in the case. Claims 1-10 stand withdrawn from consideration. Claims 12, 19 and 20 have been canceled. Claims 11 and 14 have been amended; and claims 23 and 24 have been added.

The Abstract and paragraph 0031 have also been amended.

EXTENSION OF TIME:

A two-month extension of time from January 3, 2006 to and including March 3, 2006 accompanies this response.

IN RESPONSE TO THE OFFICE ACTION:

AFFIRMING ELECTION:

The election of Group II (claims 11-22) without traverse made by Carter White on September 21, 2005, in response to a restriction requirement is hereby affirmed.

PRIORITY:

Claims 11-16 and 21-22 (plus new claims 23 and 24) find support in the priority documents as shown in Exhibit A attached hereto.

Claim 17 recites the dispersant being a **polymeric acrylate ester**, and more details about such polymers in claims 18-20 (depend from claim 17; note claims 19 and 20 have been canceled), which along with associated disclosure were added in the present CIP application.

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OATH/DECLARATION:

As required by the Examiner [see Notice of Informal Application (copy attached) that accompanied present Office Action], a new declaration by the inventor Andrew J. Bradbury is attached hereto, which identifies his residence, complete mailing address, and citizenship. This information for the other inventors was previously presented.

OBJECTION TO SPECIFICATION:

As required by the Examiner, the Abstract has been amended to be within the range of 50 to 150 words.

OBJECTION TO THE CLAIMS:

Claim 14 has been objected to and correction required.

Claim 14 has been amended to delete the phrase "such as alpha-olefins oils, ester oils or poly(alpha-olefins)." Further, as required by the Examiner the "or" before the last member of the Markush group be changed to an "and."

Claim 23 depends from Claim 14 and recites that the oleaginous fluid is a synthetic oil. Claim 24 has been added and identifies the synthetic oil as "selected the group consisting of alpha-olefins oils, ester oils and poly(alpha-olefins)," which members were previously recited in Claim 14.

REJECTION UNDER 35 USC §112, 2ND PARAGRAPH:

Claims 19 and 20 stand rejected under 35 USC §112, 2nd paragraph. This rejection is rendered moot since Claims 19 and 20 have been canceled.

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REJECTIONS UNDER 35 USC §102:

A. Falcon-Steward (US 4,166,582) – 102 rejection of Claims 11, 21 & 22

The Examiner concedes that Claim 12 is patentable over this reference. Accordingly, Claim 11 has been amended to include the limitation of Claim 12, “wherein the liquid medium is an oleaginous fluid,” thereby placing Claim 12 in independent form and avoiding this reference. Claims 21 and 22 now depend from and include the limitations of amended Claim 11 and are also patentable thereover.

Therefore, Applicants respectfully request the withdrawal of the rejection of claims 11 (as amended), 21 and 22 under 35 USC §102(b), and allowance thereof.

B. Lillmars (US 5,307,938) – 102 rejection of Claims 11 & 22.

The Examiner concedes that Claim 12 is patentable over this reference. Accordingly, Claim 11 has been amended to include the limitation of Claim 12, “wherein the liquid medium is an oleaginous fluid,” thereby placing Claim 12 in independent form and avoiding this reference. Claim 22 now depends from and includes the limitations of amended Claim 11 and is also patentable thereover.

Therefore, Applicants respectfully request the withdrawal of the rejection of claims 11 (as amended) and 22 under 35 USC §102(b), and allowance thereof.

C. Groves (US 3,065,172) – 102 rejection of Claims 11, 12, 16 & 22.

This rejection is respectfully traversed.

As recited in Claim 11, the solid material is comminuted in the presence of the dispersant and the liquid medium, that is, a wet-grind process.

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However, Groves does not comminute the solid material in his invention. **He actually obtains the oil-insoluble solids in a finely divided form.** See, column 2, lines 44-46 (The oil-insoluble solids which are employed include in general, any oil-insoluble solids which can be obtained in finely divided form.). The fluid loss additive of Groves has a surface active agent and finely divided oil-insoluble solid comprising particles in a size range from 0.005 to 2 microns, where the additive has been milled in the **plastic state.** (Groves at Col. 2, lines 26-31).

The milling process is initially used to knead the formulation and subject it to shearing action to intimately disperse the solids throughout the formulation. (Groves at Col. 6, lines 32-35). "Prior to milling the additive formulation can be present as a slurry, for example in water or an oil diluent or as a paste like admixture of solid and surfactant." (Groves at Col. 6, lines 35-38). See also, Example XV, where the finely divided solid is silica flour which is blended with a dispersant (aluminum soap) and then milled. (Groves at Col. 15, lines 5-41). Thus, Groves does not comminute the solid material in his invention.

The essential feature of Groves lies in the degree or amount of milling to which his composition is subjected when in the **plastic state.** (Groves at Col. 6, lines 53-56). The degree or amount of milling varies depending on the type and amount of surface active agent and the type and amount of finely divided oil-insoluble solids used. (Groves at Col. 6, lines 27-32). This is also apparent in Claim 1 of Groves, which recites that a mixture of finely divided oil insoluble solids and an at least partially oil soluble surface active agent is milled to form a **plastic material.** Milling to just knead the composition to achieve dispersion of the particles is not enough. Milling in the **plastic state** is required, the extent of which is determined by one of product hardness, time of milling, and energy work input to the milling operations. (Groves at Col. 6, lines 56-60).

"During the milling operation the formulation becomes stiff through loss of volatile material and eventually obtains an extremely stiff plastic consistency. At this

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stage the material usually has a hardness in the range of 40 to 60 as determined by a Shore durometer A2 gauge (A.S.T.M. D 676). With continued milling the composition becomes still stiffer and eventually reaches brittle consistency. ... The hardness of the brittle product can vary from about 90 to 95." (Groves at Col. 6, lines 38-52) "It is necessary that a major proportion of this liquid be removed such as by vaporization before the plastic consistency required for effective milling can be obtained." (Groves at Col. 7, lines 3-6).

The claims of the present application require that comminuting of the solid material occur in a liquid medium along with a dispersant as a wet-grind process. In such an environment, the milling of Groves to achieve a plastic consistency cannot be achieved. In Examples I and II of Groves, the composition is first drum dried and then milled. In Examples III, IV and VIII, a major portion (70%w and higher) of the solid particulates are combined with a minor portion of the dispersant to form a slurry and drum dried followed by milling. Milling at higher number of passes or time of milling achieved the properties that Groves desired.

In Example XI, the liquid medium was greater in relative proportion to the particulate material and milled, and then drum dried. These formulations did not achieve the desired fluid loss properties sought by Groves. Milling in the plastic state was not achieved.

In Example XII, a mixture of the particulate material and dispersant was pressed to remove the liquid. The mixture did not possess fluid loss prevention properties.

Therefore, Groves does not anticipate original Claim 11 of the present application or amended claim 11 (which includes the limitations of claim 12), nor claims 16 and 22 that depend therefrom. Thus, Applicants respectfully request the withdrawal of the rejection of claims 11 (as amended), 16 and 22 under 35 USC §102(b), and allowance thereof.

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D. Buchanan et al. (SIR H987) – 102 rejection of Claims 11, 12, 15 & 16

This rejection is respectfully traversed.

Buchanan et al., like Groves, deals with materials that are already in powdered form. See, Buchanan et al. at Col. 3, lines 4-9 (fine grained barium titanate); col. 3, lines 9-12 (powder of commercial barium titanate); col. 3, lines 14-16 (barium titanate has particle size range of 0.7-1.5 microns); col. 3, lines 16-18 (zirconia has particle size range of 0.02-0.3 microns). “These two powders are deagglomerated and mixed in a liquid medium by conventional ball milling.” Buchanan et al. at Col. 3, lines 18-20. Thus, a solid material is not being comminuted from one size to a smaller size, but instead involves the deagglomeration of already powdered materials.

Further, since claim 11 has been amended to include the limitation of Claim 12, “wherein the liquid medium is an oleaginous fluid,” to avoid Falcon-Steward and Lillmar, this reference is also avoided on this basis. The Examiner points to disclosure in Buchanan et al. at col. 3, lines 42-45 regarding use of alcohol in the liquid medium. However, the liquid medium is not an alcohol, but de-ionized water that contains an alcohol. Since the alcohol is in the de-ionized water, the liquid medium is primarily aqueous.

Therefore, Buchanan et al. does not anticipate original Claim 11 of the present application or amended claim 11 (which includes the limitations of claim 12), nor claims 15 and 16 that depend therefrom. Thus, Applicants respectfully request the withdrawal of the rejection of claims 11 (as amended), 15 and 16 under 35 USC §102(b), and allowance thereof.

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REJECTION UNDER 35 USC §103:

103 rejection of Claims 11-14, 17 and 19-20. Groves in view of GB 1,414,964, Falcon-Steward and/or WO 97/45625. (WO reference only available against claims 17, and 19-20, since Claims 11-14 have priority to UK document)

The rejection is respectfully traversed.

Groves has been distinguished above in that it does not deal with comminuting a solid material from one size to a smaller size in the presence of a dispersant and a liquid medium.

Falcon-Steward has been distinguished since Claim 11 has been amended to include the limitation of claim 12 such that the liquid medium is an oleaginous fluid, not an aqueous medium.

GB 1,414,964 is likewise distinguished, since it is also directed to the use of a water-soluble deflocculant in an aqueous slurry of a particulate material during the grinding of such particulate material.

Therefore, the proposed combination fails to render obvious these claims.

Further, WO 97/45625 is not a prior art reference against original claims 11-14, since such claims do find support in the UK and PCT priority documents, as shown in Exhibit A attached.

Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 11(as amended), 13-14 and 17 under 35 USC §103(a), and allowance thereof. [Note: claims 12, 19 and 20 have been canceled]

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OBVIOUSNESS-TYPE DOUBLE PATENTING REJECTION – CLAIMS 11, 12, 14 & 22:

Claims 11, 12, 14 & 22 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 28-31 and 42-44 of co-pending Application No. 10/274,528.

A terminal disclaimer is filed herewith as an expedient to avoid this provisional rejection.

AMENDMENT TO SPECIFICATION:

Paragraph 0031 of the specification has been amended to delete reference to Figure 1, since a Figure 1 was not filed with the application. Since the application was examined without the presence of Figure 1, it is Applicants' position that Figure 1 is "not necessary for the understanding of the invention." 35 U.S.C. §113, 2nd sentence. The claims presently in the case are adequately supported by the specification without reference to the missing Figure 1.

It is noted that the Applicants have the option to accept the application as deposited in the USPTO. See MPEP 601.01(g) (which speaks in terms of an application initially filed). In that case, an amendment of the specification is required in a non-provisional application to cancel all references to the omitted drawing, both in the brief and detailed descriptions of the drawings and including any reference numerals shown only in the omitted drawings.

Accordingly, Applicants' have canceled the single reference to Figure 1 in the specification in Paragraph 0031, as published.

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CONCLUSION:

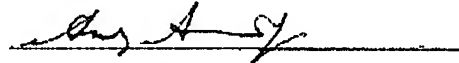
As a result of presentation of this request for reconsideration, no additional fees are due. It is noted that the application was initially filed with 22 claims. Three dependent claims were canceled and two dependent claims added as a result of this response. Thus, no additional fees caused by adding claims are due.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 14-1437, referencing Order No. 8011.406.CPUS00.

On the basis of the foregoing reasons, reconsideration of this application and its early allowance are respectfully requested. If any questions or issues remain, the resolution of which the Examiner feels would be advanced by a conference with Applicants' attorney, the Examiner is invited to contact such attorney at the telephone number noted below.

Respectfully submitted by,

Date: FEB. 28, 2006



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Attachments:

1. Exhibit A
2. Terminal Disclaimer
3. Notice of Informal Application
4. Declaration executed by Andrew J. Bradbury